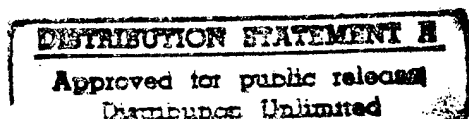


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TECHNICAL REPORTS

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1026	Korean Language Generation in an Interlingua-Based Speech Translation System	Yang, D.W.	21 Feb. 1996	ADA306658
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JOURNAL ARTICLES

JA No.

- | | | | |
|------|--|--|--|
| 7025 | Digital Filter Bank Design
Quadratic-Constrained
Formulation | Nguyen, T.Q. | IEEE Trans. Signal
Process., Vol. 43, No. 9,
September 1995,
pp. 2103-2108 |
| 7109 | A Subband Approach to
Time-Scale Expansion of
Complex Acoustic Signals | Quatieri, T.F.
Dunn, R.B.
Hanna, T.E. | IEEE Trans. Speech
Audio Process., Vol. 3,
No. 6, November 1995,
pp. 515-519
ADA307368 |
| 7113 | High-Power HTS Microstrip
Filters for Wireless
Communication | Liang, G-C.
Zhang, D.
Shih, C-F.
Johansson, M.E.
Withers, R.S.
Oates, D.E.
Polakos, P.
Mankiewich, P.
de Obaldia, E.
Miller, R.E. | IEEE Trans. Microw.
Theory Tech.,
Vol. 43, No. 12,
December 1995,
pp. 3020-3029 |
| 7130 | Invariant Tests for
Spatial Stationarity Using
Covariance Structure | Bose, S.
Steinhardt, A.O. | 7th IEEE Signal
Processing Workshop
on Statistical
Signal and Array
Processing,
26-29 June 1994,
pp. 101-104 |
| 7138 | Breakdown of Overlapping-
Gate GaAs MESFET's | Chen, C-L. | IEEE Trans. Electron
Devices, Vol. 43,
No. 4, April 1996,
pp. 535-542
ADA309825 |
| 7140 | Turbulence-Induced
Scintillation on
Gaussian-Beam Waves:
Theoretical Predictions
and Observations from a
Laser-Illuminated
Satellite | Shelton, J.D. | J. Opt. Soc. Am. A,
Vol. 12, No. 10,
October 1995,
pp. 2172-2181
ADA307377 |

Journal Articles

JA No.

- | | | | |
|---------|--|---|--|
| 7143 | Constraints on the Cutoff Frequencies of Mth-Band Linear-Phase FIR Filters | Nohrden, J.M.
Nguyen, T.Q. | IEEE Trans. Signal Process., Vol. 43, No. 10, October 1995, pp. 2401-2405 |
| 7161 | A Maximal Invariant Framework for Adaptive Detection with Structured and Unstructured Covariance Matrices | Bose, S.
Steinhardt, A.O. | IEEE Trans. Signal Process., Vol. 43, No. 9, September 1995, pp. 2164-2175 |
| 7166 | Comparison of Four Approaches to Automatic Language Identification of Telephone Speech | Zissman, M.A. | IEEE Trans. Speech Audio Process., Vol. 4, No. 1, January 1996, pp. 31-44
ADA309609 |
| 7172 | Generalized Effective Index Series Solution Analysis of Waveguide Structures with Positionally Varying Refractive Index Profiles | Donnelly, J.P.
Lau, S.D. | IEEE J. Quantum Electron., Vol. 32, No. 6, June 1996, pp. 1070-1079
ADA310707 |
| 7186-R1 | Synthetic-Aperture-Radar Imaging with a Solid-State Laser | Green, T.J., Jr.
Marcus, S.
Colella, B.D. | Appl. Opt., Vol. 34, No. 30, 20 October 1995, pp. 6941-6949
ADA307392 |
| 7217 | Laser Assisted Focused-Ion-Beam-Induced Deposition of Copper | Funatsu, J.
Thompson, C.V.
Melngailis, J.
Walpole, J.N. | J. Vac. Sci. Technol. B, Vol. 14, No. 1, January/February 1996, pp. 179-180 |
| 7219 | Effects of Low-Temperature-Grown GaAs and AlGaAs on the Current of a Metal-Insulator-Semiconductor Structure | Chen, C-L.
Mahoney, L.J.
Nichols, K.B.
Manfra, M.J.
Brown, E.R.
Nitishin, P.M.
Molvar, K.M.
Gramstorff, B.F.
Murphy, R.A. | J. Vac. Sci. Technol. B, Vol. 14, No. 3, May/June 1996, pp. 1745-1751
ADA318089 |

Journal Articles

JA No.

- | | | | |
|------|--|--|--|
| 7220 | A View-Based Neurocomputational System for Relational Map-Making and Navigation in Visual Environments | Bachelder, I.A.
Waxman, A.M. | Robot. Auton. Syst., Vol. 16, Nos. 2-4, December 1995, pp. 267-289 |
| 7221 | The Ring-Network Circulator for Integrated Circuits: Theory and Experiments | Weiss, J.A.
Dionne, G.F.
Temme, D.H. | IEEE Trans. Microw. Theory Tech., Vol. 43, No. 12, December 1995, pp. 2743-2748
ADA307367 |
| 7223 | Nonlinear Surface Impedance of YBCO Thin Films: Measurements, Modeling, and Effects in Devices | Oates, D.E.
Nguyen, P.P.
Dresselhaus, G.
Dresselhaus, M.S.
Koren, G.
Polturak, E. | J. Supercond., Vol. 8, No. 6, 1995, pp. 725-733
ADA307568 |
| 7226 | Observations of Ship-Generated Internal Waves in SAR Images from Loch Linnhe, Scotland, and Comparison with Theory and <i>in situ</i> Internal Wave Measurements | Hogan, G.G.
Chapman, R.D.
Watson, G.
Thompson, D.R. | IEEE Trans. Geosci. Remote Sens., Vol. 34, No. 2, March 1996, pp. 532-542 |
| 7233 | Quantum Well Intersubband Heterodyne Infrared Detection up to 82 GHz | Liu, H.C.
Li, J.
Brown, E.R.
McIntosh, K.A.
Nichols, K.B.
Manfra, M.J. | Appl. Phys. Lett., Vol. 67, No. 11, 11 September 1995, pp. 1594-1596 |
| 7235 | Sensitivity of Optically Preamplified DPSK Receivers with Fabry-Perot Filters | Chinn, S.R.
Borson, D.M.
Livas, J.C. | J. Lightwave Technol., Vol. 14, No. 3, March 1996, pp. 370-376
ADA310571 |

Journal Articles

JA No.

- | | | | |
|-------|---|--|--|
| 7236A | All-Optical Network Consortium – Ultrafast TDM Networks | Barry, R.A.
Chan, V.W.S.
Hall, K.L.
Kintzer, E.S.
Moores, J.D.
Rauschenbach, K.A.
Swanson, E.A.
Adams, L.E.
Doerr, C.R.
Finn, S.G.
Haus, H.A.
Ippen, E.P.
Wong, W.S.
Haner, M. | IEEE J. Sel. Areas Commun., Vol. 14, No. 5, June 1996, pp. 999–1013
ADA310702 |
| 7236B | A Wideband All-Optical WDM Network | Kaminow, I.P.
Doerr, C.R.
Dragone, C.
Koch, T.L.
Koren, U.
Saleh, A.A.M.
Kirby, A.J.
Özveren, C.M.
Schofield, B.
Thomas, R.E.
Barry, R.A.
Castagnozzi, D.M.
Chan, V.W.S.
Hemenway, B.R., Jr.
Marquis, D.V.
Parikh, S.A.
Stevens, M.L.
Swanson, E.A.
Finn, S.G.
Gallager, R.G. | IEEE J. Sel. Areas Commun., Vol. 14, No. 5, June 1996, pp. 780–799
ADA310709 |
| 7243 | Laser Radar Component Technology | Melngailis, I.
Keicher, W.E.
Freed, C.
Marcus, S.
Edwards, B.E.
Sanchez, A.
Fan, T.Y.
Spears, D.L. | Proc. IEEE, Vol. 84, No. 2, February 1996, pp. 227–267 |

Journal Articles

JA No.

- | | | | |
|------|--|---|---|
| 7247 | n-AlGaSb and GaSb/AlGaSb Double-Heterostructure Lasers Grown by Organometallic Vapor Phase Epitaxy | Wang, C.A.
Jensen, K.F.
Jones, A.C.
Choi, H-K. | Appl. Phys. Lett.,
Vol. 68, No. 3,
15 January 1996,
pp. 400-402
ADA307566 |
| 7248 | Fabrication of Two-Sided Anamorphic Microlenses and Direct Coupling of Tapered High-Power Diode Laser to Single-Mode Fiber | Liau, Z-L.
Walpole, J.N.
Livas, J.C.
Kintzer, E.S.
Mull, D.E.
Missaggia, L.J.
DiNatale, W.F. | IEEE Photonics Technol. Lett.,
Vol. 7, No. 11,
November 1995,
pp. 1315-1317
ADA307484 |
| 7249 | Neural Processing of Targets in Visible, Multispectral IR and SAR Imagery | Waxman, A.M.
Seibert, M.C.
Gove, A.N.
Fay, D.A.
Bernardon, A.M.
Lazott, C.H.
Steele, W.R.
Cunningham, R.K. | Neural Netw., Vol. 8,
Nos. 7/8, 1995,
pp. 1029-1051 |
| 7250 | A Terahertz Photomixing Spectrometer: Application to SO ₂ Self Broadening | Pine, A.S.
Suenram, R.D.
Brown, E.R.
McIntosh, K.A. | J. Mol. Spectrosc.,
Vol. 175, No. 1,
January 1996,
pp. 37-47 |
| 7251 | High Resolution Studies of Crystalline Damage Induced by Lapping and Single-Point Diamond Machining of Si (100) | Kunz, R.R.
Clark, H.R.
Nitishin, P.M.
Rothschild, M.
Ahern, B.S. | J. Mater. Res.,
Vol. 11, No. 5,
May 1996,
pp. 1228-1237
ADA310706 |
| 7253 | Model-Based Automatic Target Recognition (ATR) System for Forwardlooking Groundbased and Airborne Imaging Laser Radars (LADAR) | Verly, J.G.
Delanoy, R.L. | Proc. IEEE,
Vol. 84, No. 2,
February 1996,
pp. 126-163 |

Journal Articles

JA No.

- | | | | |
|-------|--|---|--|
| 7255 | 193-nm Lithography | Rothschild, M.
Forte, A.R.
Horn, M.W.
Kunz, R.R.
Palmateer, S.C.
Sedlacek, J.H.C. | IEEE J. Sel. Top.
Quantum Electron.,
Vol. 1, No. 3,
September 1995,
pp. 916-923
ADA307364 |
| 7256 | Large Electromagnetic Stop
Bands in Metallodielectric
Photonic Crystals | Brown, E.R.
McMahon, O.B. | Appl. Phys. Lett.,
Vol. 67, No. 15,
9 October 1995,
pp. 2138-2140
ADA307748 |
| 7257A | Low Oxygen and Carbon
Incorporation in
AlGaAs Using
Tritertiarybutyaluminum
in Organometallic
Vapor Phase Epitaxy | Wang, C.A.
Salim, S.
Jensen, K.F.
Jones, A.C. | J. Electron. Mater.,
Vol. 25, No. 4,
April 1996,
pp. 771-774 |
| 7258 | Performance and
Scalability of an
All-Optical Clock Recovery
Figure Eight Laser | Adams, L.E.
Kintzer, E.S.
Fujimoto, J.G. | IEEE Photonics
Technol. Lett., Vol. 8,
No. 1, January 1996,
pp. 55-57 |
| 7262 | Plasma-Deposited
Silylation Resist for 193 nm
Lithography | Horn, M.W.
Rothschild, M.
Maxwell, B.E.
Goodman, R.B.
Kunz, R.R.
Eriksen, L.M. | Appl. Phys. Lett.,
Vol. 68, No. 2,
8 January 1996,
pp. 179-181
ADA307382 |
| 7263 | 50-Gbit/s Optical Pulse
Storage Ring Using Novel
Rational-Harmonic
Modulation | Moore, J.D.
Wong, W.S.
Hall, K.L. | Opt. Lett., Vol. 20, No. 24,
15 December 1995,
pp. 2547-2549
ADA307375 |
| 7266 | Microwave Power Dependence
of $\text{YBa}_2\text{Cu}_3\text{O}_7$ Thin-Film
Josephson Edge Junctions | Oates, D.E.
Nguyen, P.P.
Habib, Y.
Dresselhaus, G.
Dresselhaus, M.S.
Koren, G.
Polturak, E. | Appl. Phys. Lett.,
Vol. 68, No. 5,
29 January 1996,
pp. 705-707 |

Journal Articles

JA No.

- | | | | |
|------|---|--|---|
| 7269 | Terahertz Photomixing with Diode Lasers in Low-Temperature-Grown GaAs | McIntosh, K.A.
Brown, E.R.
Nichols, K.B.
McMahon, O.B.
DiNatale, W.F.
Lyszczarz, T.M. | Appl. Phys. Lett.,
Vol. 67, No. 26,
25 December 1995,
pp. 3844-3846
ADA307381 |
| 7270 | Self-Aligned p-Channel MISFET with a Low-Temperature-Grown GaAs Gate Insulator | Chen, C-L.
Mahoney, L.J.
Nichols, K.B.
Brown, E.R.
Gramstorff, B.F. | IEEE Electron Device Lett., Vol. 17, No. 8,
August 1996,
pp. 413-415
ADA318083 |
| 7272 | All-Optical Networks | Chan, V.W.S. | Sci. Am., Vol. 273, No. 3,
September 1995,
pp. 72-76
ADA307904 |
| 7273 | Frequency and Temperature Dependence of the Microwave Surface Impedance of $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Thin Films in a dc Magnetic Field: Investigation of Vortex Dynamics | Belk, N.
Oates, D.E.
Feld, D.A.
Dresselhaus, G.
Dresselhaus, M.S. | Phys. Rev. B,
Vol. 53, No. 6,
1 February 1996,
pp. 3459-3470
ADA307906 |
| 7274 | All-Optical Timing Extraction at 40 GHz Using a Mode-Locked Figure-Eight Laser with an SLA | Adams, L.E.
Kintzer, E.S.
Fujimoto, J.G. | Electron. Lett.,
Vol. 31, No. 20,
28 September 1995,
pp. 1759-1761 |
| 7276 | Magnetic Exchange and Charge Transfer in Mixed-Valence Manganites and Cuprates | Dionne, G.F. | J. Appl. Phys., Vol. 79,
No. 8, 15 April 1996,
pp. 5172-5174
ADA309822 |
| 7282 | Optically Pumped $\text{GaN}/\text{Al}_{0.1}\text{Ga}_{0.9}\text{N}$ Double-Heterostructure Ultraviolet Laser | Aggarwal, R.L.
Maki, P.A.
Molnar, R.J.
Liau, Z-L.
Meingailis, I. | J. Appl. Phys.,
Vol. 79, No. 4,
15 February 1996,
pp. 2148-2150
ADA307562 |

Journal Articles

JA No.

- | | | | |
|-------|---|---|--|
| 7283A | Self-Aligned Complementary GaAs MISFETs Using a Low-Temperature-Grown GaAs Gate Insulator | Chen, C-L
Mahoney, L.J.
Nichols, K.B.
Brown, E.R. | Electron. Lett.,
Vol. 32, No. 4,
15 February 1996,
pp. 407-409
ADA318092 |
| 7284 | Auger Lifetime in InAs, InAsSb, and InAsSb-InAlAsSb Quantum Wells | Lindle, J.R.
Meyer, J.R.
Hoffman, C.A.
Bartoli, F.J.
Turner, G.W.
Choi, H-K. | Appl. Phys. Lett.,
Vol. 67, No. 21,
20 November 1995,
pp. 3153-3155 |
| 7286 | Comparison of Electric Field Emission from Nitrogen-Doped, Type Ib Diamond, and Boron-Doped Diamond | Geis, M.W.
Twichell, J.C.
Efremow, N.E., Jr.
Krohn, K.E.
Lyszczarz, T.M. | Appl. Phys. Lett.,
Vol. 68, No. 16,
15 April 1996,
pp. 2294-2296 |
| 7289 | Automatic Language Identification of Telephone Speech | Zissman, M.A. | Linc. Lab. J.,
Vol. 8, No. 2,
Fall 1995,
pp. 115-144
ADA318370 |
| 7290 | Production of Adaptive Array Troughs by Dispersion Synthesis | Zatman, M.A. | Electron. Lett.,
Vol. 31, No. 25,
7 December 1995,
pp. 2141-2142 |
| 7292 | Nonlinear Compression of Chirped Solitary Waves with and Without Phase Modulation | Moore, J.D. | Opt. Lett.,
Vol. 21, No. 8,
15 April 1996,
pp. 555-557
ADA318078 |
| 7296 | Microwave Intermodulation Products and Excess Critical Current in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Josephson Junctions | Sollner, T.C.L.G.
Sage, J.P.
Oates, D.E. | Appl. Phys. Lett.,
Vol. 68, No. 7,
12 February 1996,
pp. 1003-1005 |

Journal Articles

JA No.

- | | | | |
|------|---|---|---|
| 7297 | Nondegenerate Four-Wave Mixing Wavelength Conversion in Low-Loss Passive InGaAsP-InP Quantum-Well Waveguides | Donnelly, J.P.
Le, H.Q.
Swanson, E.A.
Groves, S.H.
Darwish, A.
Ippen, E.P. | IEEE Photonics Technol. Lett., Vol. 8, No. 5, May 1996, pp. 623-625
ADA309410 |
| 7301 | Room-Temperature 50-mJ/Pulse Side-Diode-Pumped Yb:YAG Laser | Sumida, D.S.
Fan, T.Y. | Opt. Lett., Vol. 20, No. 23, 1 December 1995, pp. 2384-2386 |
| 7302 | High Zenithal Directivity from a Dipole Antenna on a Photonic Crystal | Brown, E.R.
McMahon, O.B. | Appl. Phys. Lett., Vol. 68, No. 9, 26 February 1996, pp. 1300-1302 |
| 7308 | Ultraviolet Generation with Passively Q-Switched Microchip Lasers | Zayhowski, J.J. | Opt. Lett., Vol. 21, No. 8, 15 April 1996, pp. 588-590 |
| 7315 | PdSi Focal-Plane Array Detectors for Short-Wave Infrared Raman Spectroscopy of Biological Tissue: A Feasibility Study | Brennan, J.F. III
Beattie, M.E.
Wang, Y.
Cantella, M.J.
Tsaur, B-Y.
Dasari, R.R.
Feld, M.S. | Appl. Opt., Vol. 35, No. 28, 1 October 1996, pp. 5736-5739 |
| 7319 | Microchip Lasers Create Light in Small Spaces | Zayhowski, J.J. | Laser Focus World, April 1996, pp. 73-78
ADA310569 |
| 7322 | InP-Based Self-Aligned Normally-Off Superlattice-Insulated-Gate Field-Effect Transistor | Chen, C-L.
Mahoney, L.J.
Brown, E.R. | IEEE Electron Device Lett., Vol. 17, No. 10, October 1996, pp. 476-478
ADA318090 |

Journal Articles

JA No.

- | | | | |
|------|--|--|---|
| 7323 | Experimental Study of the Effect of Quantum-Well Structures on the Thermoelectric Figure of Merit | Hicks, L.D.
Harman, T.C.
Sun, X.
Dresselhaus, M.S. | Phys. Rev. B,
Vol. 53, No. 16,
15 April 1996,
pp. 493-496 |
| 7326 | 175 K Continuous Wave Operation of InAsSb/InAlAsSb Quantum-Well Diode Lasers Emitting at 3.5 μm | Choi, H-K.
Turner, G.W.
Manfra, M.J.
Connors, M.K. | Appl. Phys. Lett.,
Vol. 68, No. 21,
20 May 1996,
pp. 2936-2938 |
| 7331 | High Temperature Superconductive Wideband Compressive Receivers | Lyons, W.G.
Arsenault, D.R.
Anderson, A.C.
Sollner, T.C.L.G.
Murphy, P.G.
Seaver, M.M.
Boisvert, R.R.
Slattery, R.L.
Ralston, R.W. | IEEE Trans. Microw.
Theory Tech.,
Vol. 44, No. 7,
July 1996,
pp. 1258-1278
ADA318082 |
| 7340 | Toolkit for Image Mining: User-Trainable Search Tools | Delanoy, R.L. | Linc. Lab. J.,
Vol. 8, No. 2,
Fall 1995,
pp. 145-160
ADA317884 |
| 7369 | Automatic Speaker Recognition Using Gaussian Mixture Speaker Models | Reynolds, D.A. | Linc. Lab. J.,
Vol. 8, No. 2,
Fall 1995,
pp. 173-192
ADA318367 |
| 7378 | Fabrication and Theory of Diamond Emitters | Geis, M.W.
Twichell, J.C.
Lyszczarz, T.M. | Linc. Lab. J.,
Vol. 8, No. 2,
Fall 1995,
pp. 161-172
ADA318091 |

MEETING SPEECHES

MS No.

- | | | | |
|--------|--|--|---|
| 10259 | Military and Government
Applications of
Human-Machine
Communication by Voice | Weinstein, C.J. | Proc. Natl. Acad.
Sci., Vol. 92,
October 1995,
pp. 10011-10016
ADA307308 |
| 10319A | Array Calibration
Utilizing Clutter
Scattering | Robey, F.C.
Fuhrmann, D.R.
Krich, S.I. | 7th IEEE Signal
Processing Workshop
on Statistical
Signal and Array
Processing,
26-29 June 1994,
pp. 317-320 |
| 10363A | An Overview of Binary
Optics Process Technology | Stern, M.B. | Optical Society of
America, Diffractive
Optics: Design,
Fabrication, and
Applications,
Topical Mtg., 1994
Technical Digest
Series, Vol. 11,
6-9 June 1994,
pp. 334-337 |
| 10445D | Adaptive Focusing
Experiments for Minimally
Invasive Monopole Phased
Arrays in Hyperthermia
Treatment of Breast Cancer | Fenn, A.J.
Cheung, A.Y.
Cao, H. | Proc. 16th Annual
Int. Conf. of the
IEEE Engineering in
Medicine and Biology
Society, Engineering
Advances: New
Opportunities for
Biomedical
Engineers,
Vol. 2, 1994,
pp. 766-767 |
| 10459 | ADS-Mode S | Knittel, G.H.
Orlando, V.A. | 38th Annual Air
Traffic Control
Association
Convention Proc.,
24-28 October 1993,
pp. 230-236 |

Meeting Speeches

MS No.

10597	Visible-Band Autonomous Satellite Tracking for the Midcourse Space Experiment (MSX)	Powell, G.E. Gaposchkin, E.M.	AIAA/AAS Space Flight Mechanics, 1994, pp. 507-519
10717	A Two Step Adaptive Interference Nulling Algorithm for Use with Airborne Sensor Arrays	Marshall, D.F.	7th IEEE Signal Processing Workshop on Statistical Signal and Array Processing, 26-29 June 1994, pp. 301-304
10718	Sparse Network Array Processing	Baranoski, E.J.	7th IEEE Signal Processing Workshop on Statistical Signal and Array Processing, 26-29 June 1994, pp. 145-148
10719	Radar Antenna Calibration Using Range-Doppler Data	Koerber, M.A. Fuhrmann, D.R.	7th IEEE Signal Processing Workshop on Statistical Signal and Array Processing, 26-29 June 1994, pp. 441-444
10882	Fabrication and Performance of $\text{In}_{0.53}\text{Ga}_{0.47}\text{As}/\text{AlAs}$ Resonant Tunneling Diodes Overgrown on GaAs/AlGaAs Heterojunction Bipolar Transistors	Nichols, K.B. Brown, E.R. Manfra, M.J. McMahon, O.B. Zampardi, P.J. Pierson, R.L. Wang, K.C.	Institute of Physics Conf. Series 141: Chapter 6, Int. Symp. on Compound Semiconductors, 18-22 September 1994, pp. 737-742
10906	Fast Subspace Tracking	Rabideau, D.J. Steinhardt, A.O.	7th IEEE Signal Processing Workshop on Statistical Signal and Array Processing, 26-29 June 1994, pp. 353-356

MS No.

- | | | | |
|-------|---|--|---|
| 10912 | An 800 MHz Monolithic GaAs HBT Serrodyne Modulator | Kushner, L.J.
Van Andrews, G.
White, W.A.
Delaney, J.B.
Vernon, M.A.
Harris, M.P.
Whitmire, D.A. | Proc. 16th IEEE Gallium Arsenide Integrated Circuit Symp., Technical Digest, 16-19 October 1994, pp. 34-37 |
| 10968 | Application of Smart-Pixel and Microlens Arrays to Early Vision | Aull, B.F.
Liau, Z-L.
Maki, P.A.
Brown, E.R. | LEOS'94, IEEE Lasers and Electro-Optics Society 1994 7th Annual Mtg., Vol. 1, 31 October - 3 November 1994, pp. 149-150 |
| 10973 | Mass-Transported Efficient Microlenses in GaAs and GaP for Integration with High-Power Diode Lasers | Liau, Z-L.
Walpole, J.N.
Mull, D.E.
Hovey, D.L.
DiNatale, W.F. | LEOS'94, IEEE Lasers and Electro-Optics Society 1994 7th Annual Mtg., Vol. 1, 31 October - 3 November 1994, pp. 67-68 |
| 10976 | Nondegenerate Four-Wave Mixing Wavelength Conversion in Low-Loss Passive InGaAsP/InP Waveguides | Donnelly, J.P.
Le, H.Q.
Swanson, E.A.
Groves, S.H.
Darwish, A.
Ippen, E.P. | LEOS'94, IEEE Lasers and Electro-Optics Society 1994 7th Annual Mtg., Vol. 2, 31 October - 3 November 1994, pp. 330-331 |
| 10980 | False Alarm Reduction Through Road Area Delimitation | Irving, W.W., Jr.
Verbout, S.M. | IEEE 1995 Int. Radar Conf., 8-11 May 1995, pp. 656-661 |
| 10981 | An Algorithm for Detecting Groups of Targets | Owirka, G.J.
Halversen, S.D.
Hiatt, M.
Novak, L.M. | IEEE 1995 Int. Radar Conf., 8-11 May 1995, pp. 641-643 |

Meeting Speeches

MS No.

10997	The Changing World, The Changing Nature of Conflicts: A Critical Role for Military Radar	Delaney, W.P.	IEEE 1995 Int. Radar Conf., 8-11 May 1995, pp. 11-15
11006	SAR Detection of Wires Using Image Phase Signatures	Jao, J.K. Ayasli, S.	IEEE 1995 Int. Radar Conf., 8-11 May 1995, pp. 362-368
11007	Data Processing Techniques for Airport Surveillance Radar Weather Sensing	Weber, M.E. Delanoy, R.L. Chornoboy, E.S.	IEEE 1995 Int. Radar Conf., 8-11 May 1995, pp. 521-528
11015	SAR Foliage Penetration Phenomenology of Tropical Rain Forest and Northern U.S. Forest	Binder, B.T. Toups, M.F. Ayasli, S. Adams, E.M.	IEEE 1995 Int. Radar Conf., 8-11 May 1995, pp. 158-162
11019	A FFT Based Algorithm for the Formation of Wide-Angle ISAR Images Using EIP	Moore, T.G.	IEEE 1995 Int. Radar Conf., 8-11 May 1995, pp. 392-395
11090	New Approaches for Detecting Groups of Targets	Halversen, S.D. Owirka, G.J. Novak, L.M.	Twenty-Eighth Asilomar Conf. on Signals, Systems and Computers, Vol. 1, 30 October - 2 November 1994, pp. 137-140
11108	Magnetic and Stress Characterization of Nickel Ferrite Ceramic Films Grown by Jet Vapor Deposition	Dionne, G.F. Cui, G-J. McAvoy, D.T. Halpern, B.L. Schmitt, J.J.	IEEE Trans. Magn., Vol. 31, No. 6, November 1995, pp. 3853-3855 ADA307552

Meeting Speeches

MS No.

- | | | | |
|-------|---|---|---|
| 11140 | High Resolution Imaging of Polymer Structure Using Optical Coherence Tomography | Swanson, E.A.
Hee, M.R.
Fujimoto, J.G. | ANTEC'95, The Plastics Challenge, A Revolution in Education, Vol. 2, 7-11 May 1995, pp. 2794-2797 |
| 11147 | Comparative Analysis of Ground-Based Wind Shear Detection Radars | Weber, M.E.
Isaminger, M.A.
Meuse, C.A.
Vasiloff, S.V.
Shepherd, T. | IEEE 1995 Int. Radar Conf., 8-11 May 1995, pp. 486-495 |
| 11151 | The Role of Impurities in Hydride Vapor Phase Epitaxially Grown Gallium Nitride | Molnar, R.J.
Nichols, K.B.
Maki, P.A.
Brown, E.R.
Melngailis, I. | Materials Research Society Symp. Proc., Vol. 378, 1995, pp. 479-484
ADA307898 |
| 11160 | Top-Surface Imaged Resist Processes for 193-nm Lithography | Kunz, R.R.
Palmateer, S.C.
Forte, A.R.
Horn, M.W. | American Chemical Society Natl. Symp., 2-7 April 1995, pp. 102-103 |
| 11214 | Profile Control in Dry Development of High-Aspect-Ratio Resist Structures | Stern, M.B.
Palmateer, S.C.
Horn, M.W.
Rothschild, M.
Maxwell, B.E.
Curtin, J.E. | J. Vac. Sci. Technol. B, Vol. 13, No. 6, November/December 1995, pp. 3017-3021
ADA307487 |
| 11224 | The Calibration and Characterization of IRAS Metric Resident Space Object Detections | Lane, M.T.
Baldassini, J.F.
Gaposchkin, E.M. | AAS/AIAA Astrodynamics Specialist Conf., 14-17 August 1995, pp. 1-14 |
| 11230 | A Performance Analysis of Coherently Demodulated PSK Using a Digital Phase Estimate in Frequency Hopped Systems | Stadler, J.S. | IEEE MILCOM '95, Vol. 1, 5-8 November 1995, pp. 107-112 |

Meeting Speeches

MS No.

11233	Extending the Range of the ASCAMP Pr/No Estimator	Marek, T.C. Figucia, R.J.	IEEE MILCOM '95, Vol. 2, 5-8 November 1995, pp. 483-487
11255	Issues in SAR Model-Based Target Recognition	Dudgeon, D.E. Grimson, W.E.L. Tenney, R.	SPIE, Vol. 2484, Signal Processing, Sensor Fusion, and Target Recognition IV, 17-19 April 1995, pp. 501-511
11287	A 20-Channel Wavelength-Routed All-Optical Network Deployed in the Boston Metro Area	Hemenway, B.R., Jr. Stevens, M.L. Castagnozzi, D.M. Marquis, D.V. Parikh, S.A. Carney, J.J. Finn, S.G. Swanson, E.A. Kaminow, I.P. Dragone, C. Koren, U. Koch, T.L. Thomas, R.E. Özveren, C.M. Grella, E.	Optical Society of America, Conf. on Optical Fiber Communication, Vol. 8, Technical Digest Series, 26 February - 3 March 1995, pp. 355-358
11292	A Bound on Frequency Hopped GSM Performance in Co-Channel Interference	McGuffin, B.F.	ELECTRO'96, Professional Program Proc., 30 April - 2 May 1996, pp. 235-240
11326	The US EHF Medium Data Rate Satellite Data Link Standard	Kolba, D.P.	IEEE MILCOM '95, Vol. 1, 5-8 November 1995, pp. 50-56

Meeting Speeches

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- | | | | |
|-------|---|---|---|
| 11333 | Description of All-Optical Network Testbed and Applications | Marquis, D.V.
Castagnozzi, D.M.
Hemenway, B.R., Jr.
Parikh, S.A.
Stevens, M.L.
Swanson, E.A.
Thomas, R.E.
Özveren, C.M.
Kaminow, I.P. | SPIE, Vol. 2614,
All-Optical
Communication
Systems:
Architecture,
Control, and Network Issues,
25-26 October 1995,
pp. 44-52 |
| 11336 | Characterization of an All-Optical Clock Recovery Figure Eight Laser for Systems Applications | Adams, L.E.
Kintzer, E.S.
Fujimoto, J.G. | SPIE, Vol. 2614,
All-Optical
Communication
Systems:
Architecture,
Control, and Network Issues,
25-26 October 1995,
pp. 2-12 |
| 11349 | Dry Development of Sub-0.25 μm Features Patterned with 193 nm Silylation Resist | Palmateer, S.C.
Forte, A.R.
Kunz, R.R.
Horn, M.W. | J. Vac. Sci.
Technol. A,
Vol. 14, No. 3,
May/June 1996,
pp. 1132-1136
ADA318088 |
| 11355 | A Spatially Combined Medium Power Transmitter for EHF Reflector Antennas | Delisle, J.T.
Gouker, M.A. | IEEE MILCOM '95,
Vol. 2,
5-8 November 1995,
pp. 488-492 |
| 11363 | Top-Surface Imaged Resists for 193-nm Lithography | Kunz, R.R.
Palmateer, S.C.
Horn, M.W.
Forte, A.R.
Rothschild, M. | Chapter 18 in
Microelectronics
Technology:
Polymers for
Advanced Imaging and
Packaging, American
Chemical Society,
1995, pp. 271-280 |

Meeting Speeches

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- | | | | |
|-------|---|---|--|
| 11403 | Evaluation of a Model of Blocking Probability in All-Optical Mesh Networks Without Wavelength Changers | Barry, R.A.
Marquis, D.V. | SPIE, Vol. 2614, All-Optical Communication Systems: Architecture, Control, and Network Issues, 25-26 October 1995, pp. 154-167 |
| 11404 | Design Considerations for 193-nm Positive Resists | Allen, R.D.
Wan, I-Y.
Wallraff, G.M.
DiPietro, R.A.
Hofer, D.C.
Kunz, R.R. | Chapter 17 in Microelectronics Technology: Polymers for Advanced Imaging and Packaging, American Chemical Society, 1995, pp. 255-270 |
| 11418 | Effects of Polarization and Resolution on the Performance of a SAR Automatic Target Recognition System | Novak, L.M.
Halversen, S.D.
Owirka, G.J.
Hiatt, M. | AEU Int. J. Electron. Commun., Vol. 50, No. 2, March 1996, pp. 92-99 |
| 11422 | Estimating Image Velocity with Convected Activation Profiles: Analysis and Improvements for Special Cases | Cunningham, R.K.
Waxman, A.M. | Proc. 1995 IEEE Workshop on Neural Networks for Signal Processing V, 31 August - 2 September 1995, pp. 351-360 |
| 11427 | Sinusoidal Coding | McAulay, R.J.
Quatieri, T.F. | Chapter 4 in Speech Coding and Synthesis, Elsevier Science Publishers, 1995, pp. 121-173 ADA307722 |
| 11450 | Automatic Dialect Identification of Extemporaneous, Conversational, Latin American Spanish Speech | Zissman, M.A.
Gleason, T.P.
Rekart, D.M.
Losiewicz, B.L. | ICASSP'96, Proc. IEEE Int. Conf. on Acoustics, Speech and Signal Processing, Vol. 2, 7-10 May 1996, pp. 777-780 |

MS No.

- | | | | |
|-------|--|--|---|
| 11462 | The Effects of Handset Variability on Speaker Recognition Performance: Experiments on the Switchboard Corpus | Reynolds, D.A. | ICASSP'96, Proc. IEEE Int. Conf. on Acoustics, Speech and Signal Processing, Vol. 1, 7-10 May 1996, pp. 113-116 |
| 11463 | Unsupervised Topic Clustering of Switchboard Speech Messages | Carlson, B.A. | ICASSP'96, Proc. IEEE Int. Conf. on Acoustics, Speech and Signal Processing, Vol. 1, 7-10 May 1996, pp. 315-318 |
| 11464 | Techniques and Applications of Analog Fiber Optic Links | Cox, C.H. III | 1995 URSI Int. Symp. on Signals, Systems, and Electronics, 25-27 October 1995, pp. 283-286 |
| 11466 | AM-FM Separation Using Auditory-Motivated Filters | Quatieri, T.F.
Hanna, T.E.
O'Leary, G.C. | ICASSP'96, Proc. IEEE Int. Conf. on Acoustics, Speech and Signal Processing, Vol. 2, 7-10 May 1996, pp. 977-980 |
| 11469 | Forwards-Backwards Averaging for Adaptive Beamforming and STAP | Zatman, M.A.
Marshall, D.F. | ICASSP'96, Proc. IEEE Int. Conf. on Acoustics, Speech and Signal Processing, Vol. 5, 7-10 May 1996, pp. 2630-2633 |
| 11471 | Radiation-Induced Loss Studies in Er-Doped Fiber Amplifier Systems | Goltsos, W.C. | SPIE, Vol. 2699, Free-Space Laser Communication Technologies VIII, 30-31 January 1996, pp. 304-309
ADA318087 |

Meeting Speeches

MS No.

- | | | | |
|-------|---|--|---|
| 11475 | A 'Reconfigurable-on-Command' LDR Uplink Signal Processor | Drover, J.E.
Greenberg, W.L. | IEEE MILCOM '95,
Vol. 2, 5-8 November
1995, pp. 308-314 |
| 11476 | Linear and Nonlinear Conjugate Gradient Methods for Adaptive Processing | Smith, S.T. | ICASSP'96, Proc.
IEEE Int. Conf. on
Acoustics, Speech
and Signal Processing,
Vol. 3, 7-10 May 1996,
pp. 1834-1837 |
| 11482 | Wavelet Feature Extraction for Image Pattern Recognition | Smokelin, J-S. | SPIE, Vol. 2751,
Hybrid Image and
Signal Processing V,
8 April 1996,
pp. 110-121 |
| 11494 | Executable Requirements: Opportunities and Impediments | Shaw, G.A.
Anderson, A.H. | ICASSP'96, Proc.
IEEE Int. Conf. on
Acoustics, Speech
and Signal
Processing, Vol. 2,
7-10 May 1996,
pp. 1232-1235 |
| 11514 | An Adaptive Nulling Algorithm for High Data Rate Transponder Satellites | Cummings, W.C. | IEEE MILCOM '95,
Vol. 1, 5-8 November
1995, pp. 33-41 |
| 11517 | Radar Tracking of Multitarget Complexes Using Hough Transforms | Copie, T.B.
Jacobson, W.J.
Payson, H.C. | SPIE, Vol. 2739,
Acquisition, Tracking,
and Pointing X,
10-11 April 1996,
pp. 122-132 |
| 11566 | Optoelectronic and Structural Properties of High-Quality GaN Grown by Hydride Vapor Phase Epitaxy | Molnar, R.J.
Aggarwal, R.L.
Liau, Z-L.
Brown, E.R.
Melngailis, I.
Gotz, W.
Romano, L.T.
Johnson, N.M. | Materials Research
Society Symp. Proc.,
Vol. 395, 1996,
pp. 189-193
ADA318084 |

Meeting Speeches

MS No.

- | | | | |
|-------|---|--|---|
| 11602 | Foliage Penetration Data Collections and Investigations Utilizing the P-3 UWB SAR | Toups, M.F.
Bessette, L.A.
Binder, B.T. | SPIE, Vol. 2757,
Algorithms for
Synthetic Aperture
Radar Imagery III,
10-12 April 1996,
pp. 136-144 |
| 11628 | Analog Link Design | Kaufmann, J.E. | SPIE, Vol. 2699,
Free-Space Laser
Communication
Technologies VIII,
30-31 January 1996,
pp. 38-49
ADA318085 |
| 11636 | Subspace Recombination of Multiple Partially Adaptive Beamformer Outputs | Baranoski, E.J.
Steinhardt, A.O.
Ballance, W.P. | ICASSP'96, Proc.
IEEE Int. Conf. on
Acoustics, Speech
and Signal
Processing, Vol. 5,
7-10 May 1996,
pp. 2860-2863 |
| 11640 | GOES Imager Upgrade Design for Minimum System Impact | Cousins, D.
Cafferty, M.S.
Candell, L.M.
Kimchi, J. | SPIE, Vol. 2812,
GOES-8 and Beyond,
7-9 August 1996,
pp. 376-388 |
| 11641 | Simulation of GOES 8 Imager IR Striping Due to 1/f Noise | Wack, E.C.
Candell, L.M. | SPIE, Vol. 2812,
GOES-8 and Beyond,
7-9 August 1996,
pp. 608-613 |
| 11642 | GOES High-Resolution Interferometer Sounder Retrieval Performance Simulations | Kerekes, J.P.
Finkle, H.R. | SPIE, Vol. 2812,
GOES-8 and Beyond,
7-9 August 1996,
pp. 437-445 |

Meeting Speeches

MS No.

- | | | | |
|-------|--|---|---|
| 11646 | The ARPA/NAVY Mountaintop Program: Adaptive Signal Processing for Airborne Early Warning Radar | Titi, G.W.
Marshall, D.F. | ICASSP'96, Proc. IEEE Int. Conf. on Acoustics, Speech and Signal Processing, Vol. 2, 7-10 May 1996, pp. 1165-1168 |
| 11649 | Electronics Considerations for a Geostationary Interferometer Sounder | Candell, L.M.
Weitz, D.M. | SPIE, Vol. 2812, GOES-8 and Beyond, 7-9 August 1996, pp. 446-452 |
| 11650 | Overview of GOES High-Resolution Interferometer Sounder (GHIS) Brassboard Development and Test Program | Bicknell, W.E. | SPIE, Vol. 2812, GOES-8 and Beyond, 7-9 August 1996, pp. 389-395 |
| 11656 | Improving the Performance of the GOES Solar X-Ray Imager (SXI) with a Back-Illuminated X-Ray Sensitive CCD | Berthiaume, G.D.
Burke, B.E.
Gregory, J.A. | SPIE, Vol. 2812, GOES-8 and Beyond, 7-9 August 1996, pp. 552-556 |
| 11659 | A Spurious Reduction Technique for High-Speed Direct Digital Synthesizers | Kushner, L.J.
Ainsworth, M.T. | 1996 IEEE Int. Frequency Control Symp., 5-7 June 1996, pp. 920-927 |
| 11660 | An MCXO for a Man-Portable Satellite Terminal | Rose, B.
Jackson, E.
Kushner, L.J. | 1996 IEEE Int. Frequency Control Symp., 5-7 June 1996, pp. 693-698 |
| 11674 | Assembly, Alignment and Testing of a GHIS Brassboard Instrument | Plaut, A.B.
Ryan-Howard, D.P.
Parker, A.C.
Weitz, D.M. | SPIE, Vol. 2812, GOES-8 and Beyond, 7-9 August 1996, pp. 462-469 |

Meeting Speeches

MS No.

- | | | | |
|-------|---|---|--|
| 11676 | An Advanced Imager Concept for GOES-R | Lencioni, D.E.
Hearn, D.R. | SPIE, Vol. 2812,
GOES-8 and Beyond,
7-9 August 1996,
pp. 426-436 |
| 11677 | GHIS Optical Design | Ryan-Howard, D.P. | SPIE, Vol. 2812,
GOES-8 and Beyond,
7-9 August 1996,
pp. 453-461 |
| 11701 | Cobra Gemini Radar | Mayhan, J.T.
O'Donnell, R.M.
Willner, D. | 1996 IEEE Natl.
Radar Conf.,
13-16 May 1996,
pp. 380-385 |
| 11702 | An Adjunct Weather Radar System Based on a Modular Software Design | Avent, R.K. | 1996 IEEE Natl.
Radar Conf.,
13-16 May 1996,
pp. 44-49 |
| 11722 | Communication and Sensor Capability Tradeoffs for Wide-Area Surveillance Systems | Chaney, R.D.
Novak, L.M.
Dudgeon, D.E. | 1996 IEEE Natl.
Radar Conf.,
13-16 May 1996,
pp. 76-81 |
| 11775 | Progress on Color Night Vision: Visible/IR Fusion, Perception & Search, and Low-Light CCD Imaging | Waxman, A.M.
Gove, A.N.
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Savoye, E.D.
Burke, B.E.
Reich, R.K.
McGonagle, W.H.
Craig, D.M. | SPIE, Vol. 2736,
Enhanced and
Synthetic Vision
1996, 8-10 April
1996, pp. 96-107 |
| 11784 | SAR Image Compression with the Gabor Transform: A Comparison of Different Quantizers and Bit Allocation Methods | Baxter, R.A.
Seibert, M.C. | SPIE, Vol. 2757,
Algorithms for
Synthetic Aperture
Radar Imagery III,
10-12 April 1996,
pp. 409-420 |

Meeting Speeches

MS No.

- | | | | |
|-------|---|---|--|
| 11802 | Global Background Characterization in 4.2-4.4 μm MWIR by Using NOAA-12 Data | Burke, H.K.
Tennyson, P.D.
Kerekes, J.P.
Finkle, H.R.
Wack, E.C. | SPIE, Vol. 2742,
Targets and
Backgrounds:
Characterization and
Representation II,
8-10 April 1996,
pp. 324-331 |
| 11804 | On the Use of Non-causal Filters for Wideband Adaptive Sensor Array Processing | Bennett, P.C.E.
Steinhardt, A.O. | ICASSP'96, Proc.
IEEE Int. Conf. on
Acoustics, Speech and
Signal Processing, Vol. 5,
7-10 May 1996,
pp. 2880-2883 |
| 11818 | Reduction of Communication Requirements for Wide-Area Surveillance Systems: Multiscale Clipping Service | Chaney, R.D.
Van Allen, E.J.
Dudgeon, D.E. | SPIE, Vol. 2755,
Signal Processing,
Sensor Fusion, and
Target Recognition
V, 8-10 April 1996,
pp. 136-146 |
| 11821 | Relationship Between Gain and Noise Figure of an Optical Analog Link | Cox, C.H. III
Ackerman, E.I.
Betts, G.E. | 1996 IEEE MTT-S Int.
Microwave Symp.
Digest, Vol. 3,
17-21 June 1996,
pp. 1551-1554 |
| 11826 | Optical Pulse Storage Loops | Moore, J.D.
Hall, K.L.
Wong, W.S. | SPIE, Vol. 2684,
High-Speed
Semiconductor
Laser Sources,
1-2 February 1996,
pp. 50-53 |
| 11830 | Bilayer Resist Approach for 193-nm Lithography | Schaedeli, U.
Tinguely, E.
Blakeney, A.J.
Falcigno, P.
Kunz, R.R. | SPIE, Vol. 2724,
Advances in Resist
Technology and
Processing XIII,
11-13 March 1996,
pp. 344-354 |
| 11938 | Mechanical Design of GHIS Brassboard | Weidler, D.E. | SPIE, Vol. 2812,
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7-9 August 1996,
pp. 479-485 |

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- Ackerman, E.I., MS-11821
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